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United States Coast Guard

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COMDTINST M 6220.9
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COMMANDANT INSTRUCTION M6220.9

Subj: PUBLIC HEALTH AND COMMUNICABLE DISEASE CONCERNS RELATED TO ALIEN MIGRANT INTERDICTION OPERATIONS (AMIO)

Ref: (a) COMDTINST M6230.4(series)(NOTAL) Immunization and Chemoprophylaxis

(b) COMDTINST 6230.7 (NOTAL) Vaccination Against Hepatitis B Virus

(c) NAVMED P-5010(series)(NOTAL) Manual of Naval Preventive Medicine

(d) COMDTINST M6000.1(series)(NOTAL), Medical Manual

(e) COMDTINST M6260.2(series)(NOTAL) Technical Guide: Practices for Respiratory Protection

(f) COMDTINST M6240.4(series)(NOTAL) Food Service Sanitation Manual

(g) COMDTINST 11300.2 (NOTAL) Water Supply and Waste Water Disposal Manual

(h) COMDTINST 6230.5 (NOTAL) Malaria Prevention and Control
(i) COMDTINST M5100.47 (NOTAL) Safety and Environmental Health Manual

1. PURPOSE. This manual prescribes guidance and information to prevent and control possible adverse health effects related to Alien Migrant Interdiction Operations (AMIO) among Coast Guard personnel. The provisions of this manual reflect the requirements of references (a) through (i).

2. ACTION. Area and district commanders, commanders of maintenance and logistics commands, commanding officers of Headquarters units, and Commander, Coast Guard Activities Europe shall ensure dissemination of the contents of this manual.

3. SCOPE. This manual provides general guidelines for the prevention and control of public health and communicable disease problems which may be encountered during AMIO. The diagnosis and treatment of patients with health problems related to AMIO activities are discussed only briefly and are generally outside the scope of this manual. This manual may also be pertinent to operations other than AMIO that either involve direct contact of Coast Guard personnel with persons from areas endemic with important communicable diseases, or place members in situations with sanitation or environmental hazards.

4. BACKGROUND. Coast Guard personnel may participate in activities with public health and communicable disease risk. In AMIO, Coast Guard personnel come into direct contact with persons originating from regions endemic with important communicable diseases. In addition to communicable disease risk, AMIO may entail environmental exposures and occupational hazards that place members at increased risk for injury or illness. Humanitarian operations may also involve large numbers of people temporarily placed under Coast Guard control who require support for nutrition, sanitation, health care, and berthing.

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CHAPTER 1. INTRODUCTION

A. Background.

1. Activities associated with various Coast Guard operations may place personnel at increased risk for illness or injury. Alien Migrant Interdiction Operations (AMIO) include direct physical contact with people from regions known to be endemic with important communicable diseases. These operations frequently have occupational or environmental conditions and circumstances that expose personnel to potential health hazards. Contact with persons with communicable diseases may increase the likelihood of disease transmission.

2. Health risks associated with AMIO can be controlled and minimized by a combination of general awareness and implementation of public and environmental health, prevention, and control measures.

B. Integrated Approach.

1. Effective control and prevention efforts require the integrated support of field operators, health personnel, Headquarters and Maintenance and Logistics Command (MLC) support staffs, and individual Coast Guard members. AMIO guidelines and standardized procedures are essential but must be flexible enough to accommodate changing AMIO conditions.

2. Maximal health and safety efforts involve a multistage approach. The most important and fundamental actions are those taken by individuals. General awareness and education of safety, environmental health, and communicable disease issues are potent factors in the control of illness and injury. Other important factors include completion of recommended immunizations, observance of safety guidelines, utilization of prescribed personal protective equipment, and steadfast practice of personal hygiene.

3. Supervisors and field commanders must take necessary measures to ensure the safety and well-being of personnel engaged in AMIO. Health services personnel support the command by providing both expert advice and technical skills. The Health Services Technicians (HSs) act as the first level of response to health and safety needs. HSs have broad training in most health-related aspects of AMIO. Medical officers at Coast Guard clinics can be consulted to solve problems on particular issues. Environmental health officers are available through the MLCs to address a wide spectrum of sanitation and environmental health issues. Maintenance and Logistics Command (k), Commandant (G-KOM), and Commandant (G-KSE) can also provide advice on AMIO health-related issues.

C. Definitions.

1. The term "public health" is a broad set of activities, measures, and components that protect, promote, and restore the health of people. Efforts are directed at groups of persons rather than individuals. Examples of public health efforts are immunization programs, protection of food and water sources, sanitation and waste disposal, toxic chemical regulations, and school health education.

2. "Risk" is the term to describe the probability or likelihood of an adverse or undesirable health outcome, such as contracting tuberculosis. Risk can be expressed in either quantitive (e.g., 1 chance out of 100) or quanlitative (high risk, low risk) terms. High or elevated risk, in public health terms, occurs when the risk of disease or injury is higher than that for the general population. For example, people who smoke cigarettes are at higher risk for the development of lung cancer than people who don't smoke. Risk management is the effort to determine and control the likelihood of undesirable outcomes. Acceptable risk is the amount of risk in any given event which is considered permissible.

3. "Screening" is the process of systematically evaluating people for the presence or absence of disease or factors closely associated with disease. The process includes chemical tests, interviews, x-rays, physical examinations, and other methods. The purpose of screening is to identify the presence of disease early enough to initiate effective measures to treat or minimize adverse effects of disease. An example of screening is the use of Purified Protein Derivative (PPD) skin testing for tuberculosis.

4. "Personal protective equipment" are those protective articles used by individuals to prevent or reduce the impact of exposure to various infectious or environmental hazards. Hard hats, safety vests, gloves, respirators, and rubberized garments are all examples of personal protective equipment.

5. "Competent medical authority" are those individuals recognized by the Coast Guard to provide health-related judgments and recommendations. In general, medical officers serve as competent medical authorities.

CHAPTER 2. PREVENTION AND CONTROL OF COMMUNICABLE DISEASES

A. Background. Personnel engaged in AMIO can be exposed to persons afflicted with various communicable diseases, including hepatitis, tuberculosis, HIV/AIDS, skin and intestinal parasites, and various types of infectious dysentery. While the list of communicable diseases appears frightening, the risk posed by them can be eliminated or reduced to acceptable levels. The public health approach to the prevention and control of communicable diseases involves a combination of education, screening, sanitation efforts, immunization or chemoprophylaxis, and, in limited circumstances, personal protective equipment. Additional disease prevention measures include:

1. Awareness of and adherence to Commandant Instructions and other guidance pertinent to public health and communicable disease;

2. Knowledge and integrated use of the health and safety systems within the Coast Guard and public health agencies external to the service;

3. Maintenance of secure, food, water, and sanitation systems on board Coast Guard vessels or units; and

4. Limited contact with alien migrants and their effects to that which is purposeful and necessary.

B. Immunizations.

1. Overview. Immunization is among the most efficacious and cost-effective ways to control the transmission of communicable diseases. The risk of transmission of a highly communicable illness, e.g., measles, can be virtually eliminated with proper immunization. For many communicable diseases, the reduction in the risk of transmission as a result of immunization far exceeds that due to other protective measures. Strong consideration, therefore, is given for immunization for those diseases for which there are safe and effective vaccines available. Many important communicable diseases, however, do not have effective vaccines available. Also, vaccine utilization does not always need to be universal, since administration, in select circumstances, can be restricted to those persons most at risk for disease. The nature and circumstances specific to AMIO do not present sufficient risks to warrant routine immunization of personnel beyond that recommended or required of all Coast Guard personnel. Port calls or travel to areas where important communicable diseases are either endemic or cause of a recent outbreak are not specific to AMIO and are damaged as directed in COMDTINST 6220.3; COMDTINST M6230.4(series); COMDTINST 6230.5; COMDTINST 6230.6; and COMDTINST 6230.7.

2. **Basic Immunizations**. Reference (a) provides a broad overview of immunization requirements and procedures. The basic level of coverage for all active duty Coast Guard members, including those engaged in AMIO, is current immunization against diptheria, tetanus, polio, and yellow fever, and documented protection against measles, mumps, and rubella.

3. **Influenza**. Immunization against influenza is discussed in an annual COMDTNOTE 6230 (Influenza Immunization Program). Personnel for whom influenza immunization is mandatory include: military health services personnel; personnel attached to combat or combat-support units (WHEC, WMEC, WPB, WAGB, WLB, CGAS); national strike force; members of the Coast Guard Reserve designated by district commanders; individuals or special teams who are available for immediate deployment outside of the United States; and any member of a unit whose commanding officer chooses to immunize for purposes of operational effectiveness. Influenza immunization is recommended for others.

4. **Hepatitis A**. The primary routes of hepatitis A transmission are through ingestion of contaminated food or water and direct person-to-person spread. Operations that bring persons with hepatitis A on board vessels should not alone adversely affect shipboard food and water. Maintenance of uncontaminated food and water sources and good personal hygiene will minimize the likelihood of exposure to hepatitis A. The effectiveness of thorough hand washing in the control of transmission should be strongly emphasized. Personnel, however, who make port calls or otherwise visit areas where hepatitis A is endemic and consume unsafe food or water while there, should be aware of their risk for hepatitis A. It is particularly important that Coast Guard personnel who prepare and serve food pay meticulous attention to food sanitation and personal hygiene.

   a. Pre-exposure prophylaxis with immune globulin (IG) is not routinely indicated for personnel engaged in AMIO. Prophylaxis for hepatitis A is detailed in reference (a).

   b. Post-exposure prophylaxis with IG when administered within two weeks of exposure is an effective and inexpensive preventive measure. It should be used in the following settings:

      (1) Repetitive contact with persons known to have hepatitis A, and

(2) Situations when the security of on board food or water sources has been compromised and the introduction of hepatitis A is suspected.

Note: Simple touching, close proximity, and limited handling of persons with hepatitis A, or their personal effects, would not inherently indicate a need for post-exposure prophylaxis, especially when protective measures such as gloves and hand washing are employed.

(3) Standard post exposure prophylaxis for hepatitis A consists of one intramuscular dose of 0.02 ml/kg using Immune Globulin (IG). IG should be administered as soon as possible but no later than two weeks post exposure.

5. **Hepatitis B**. The AMIO environment does not have exposures that necessitate routine immunization for hepatitis B. However, health services personnel shall be immunized and emergency medical technicians are strongly recommended to be immunized, as outlined in reference (b). Paragraph 2.D.4 of this manual provides further discussion of hepatitis B and gives guidelines for post-exposure prophylaxis.

C. Tuberculosis.

1. **Overview**. While Tuberculosis (TB) is communicable, it is relatively difficult to become infected since close and repetitive exposure to persons with active disease is necessary. Detailed guidance on tuberculosis prevention and control is outlined in reference (d). Essential components of an effective TB prevention program include:

a. Awareness;

b. Screening;

c. Case recognition;

d. Isolation and treatment;

e. Chemoprophylaxis;

f. Use of personal protective equipment in select circumstances; and

g. Basic actions to prevent the likelihood of transmission which include:

(1) Minimize close contact with persons suspected of having tuberculosis;

(2) Identify alien migrants who are known or are highly suspected of having TB;

(3) Conduct interviews, medical screening, and other activities requiring close contact with alien migrants in an open air environment;

(4) Minimize contact with alien migrants in enclosed spaces; and

(5) Use respiratory protection (masks) in selected circumstances.

2. **Screening**. The specifics and mechanics of TB screening are outlined in reference (d). Simply being briefly on board a vessel that engages in AMIO or being near alien migrants does not create a clinically significant risk for TB transmission. All active duty members must be screened using the PPD skin test a minimum of every four years. Personnel engaged in AMIO are likely to be at increased risk for TB exposure and must undergo PPD testing annually. PPD testing starts with AMIO deployment and continues annually, with the last PPD performed six months after AMIO deployment has terminated. In select circumstances, the duration and intensity of exposure to TB-suspect persons may warrant skin testing up to every six months. However, biannual screening should be viewed as the extreme and should be restricted to the most intense of TB exposures. A combination of factors which would indicate more than annual TB screening of these include:

a. Face-to-face contact or close proximity to multiple alien migrants known or highly suspected of having tuberculosis. The fact that alien migrants originate from TB endimic areas is an insufficient criterion as to whether a person is known or highly suspected of having disease. Only if there is a history of current disease or physical signs of symtoms consistent with active disease may a conclusion be made that the person has or is highly suspected of having TB; and

b. Exposure to persons suspected to have TB takes place in confined environments, e.g., vessel holds, rather than open areas, e.g., weather decks.

3. **Respiratory Protection**. No special personal respiratory protection equipment (e.g., masks) is necessary for the majority of situations involving contact with alien migrants. For most Coast Guard personnel, contact with alien migrants is either brief or occurs in an open-air environment. Masks, therefore, should be used only in highly defined circumstances where the duration and

magnitude of TB exposure warrant use. Use of masks can be recommended by competent medical authority after careful review of circumstances. Factors that need to be present when recommending that masks be used include:

a. Personnel come into direct contact or close proximity to persons suspected of having active tuberculosis;

b. Exposure to suspected TB patients occurs in closed environments, e.g., vessel holds;

c. Exposure is either repetitive or prolonged. The exact number and duration of contacts which would require the use of masks is difficult to quantify. Pertinent factors include whether contact is with persons demonstrating signs consistent with active disease (cough, fever, wasting, etc.), the number of suspected TB patients contacted, how close the contact is (face-to-face vs general proximity), and especially, the adequacy of ventilation;

d. Respiratory protection devices must filter particles to the 1.0 micron size. Most common surgical masks do not meet this criteria and should not be used. The minimum respiratory protection device is a National Institute for Occupational Safety and Health (NIOSH) or approved high efficiency particulate air (HEPA) respirator. Two series of respirators which meet NIOSH criteria are available from the Federal supply system (NSN 4240-01-342-5237 and NSN 4240-01-272-1877); and

e. Respiratory protection devices must be form-fitting and worn correctly to be effective. Persons who wear masks for protection against TB transmission must be evaluated, fitted, and instructed as outlined in reference (e).

4. **Patient Identification and Initial Approach**. Persons with possible active tuberculosis should be identified. The circumstances common to most AMIO situations, however, severely limit the ability to effectively differentiate TB patients from persons with other respiratory disorders. The purpose of identifying TB patients is to promptly institute measures to minimize the risk of transmission while these persons are under Coast Guard control and to assure access to diagnosis and treatment when possible.

a. The primary method of identifying TB patients in the field is history and physical examination. Persons from areas endemic with TB should be suspected of having the disease if they:

(1) Give a history of known diagnosis;

(2) Report cough; and

(3) Have blood stained sputum, weight loss, fatigue, night sweats, and fever.

b. Once identified as suspect for active TB, patients should receive complete medical evaluation and treatment as soon as possible. In addition, patients with suspect TB should be isolated from non-diseased persons, if possible, and limit contact with them to minimize risk of disease transmission.

c. Having persons with suspected active TB wear a mask may be considered, but this is often not tolerated by ill persons, may be difficult to enforce for extended periods, and is of unknown efficacy in reducing the probability of disease transmission. Factors that should be considered before issuing masks to patients include mask availability, proper fitting, and patient acceptance. Masks, if issued, should be limited to those suspected of having active disease (cough, fever, weight loss, etc.). Issuance of masks does not negate preventative measures otherwise outlined.

5. **Ventilation**. Most tuberculosis is transmitted through inhalation of airborne infectious droplets produced by persons with active disease. The likelihood of transmission is directly related to the concentration of infectious droplets in the environment. Droplet concentration, in turn, is influenced by ventilation. Adequate ventilation will rapidly dilute and dry out infectious droplets. The risk of disease transmission is substantially higher when persons with active disease are in confined spaces as opposed to open-air environments. The risk of disease transmission, therefore, can be reduced by minimizing contact with TB patients in confined areas and by ventilating or otherwise diluting infectious droplet concentration whenever possible. Air flow in enclosed environments can be enhanced by mechanical ventilation. The preferred method of ventilation is to draw room air out and discharge it into the general open air environment. The introduction of large volumes of outside air into a closed area is an acceptable alternative.

6. **Sources of Additional Information**. Commander, MLC(k), Commandant (G-KSE), and Commandant (G-KOM) can be contacted for additional information on TB prevention and control. The Center for Disease Control and Prevention (CDC) information system for TB can be accessed through calling (404) 639-1819.

D. Bloodborne Pathogens.

1. **Overview**. Blood or fluids contaminated with blood, other body fluids (e.g., semen, cerebral spinal fluid, and vaginal secretions) can be potential sources of bloodborne pathogens. Hepatitis B and human immunodeficiency virus (HIV) are two bloodborne pathogens of major concern. Personnel engaged in AMIO may be involved in circumstances that expose them to blood. Transmission of disease, however, can be minimized so that personnel can perform expected duties without undue fear. Prevention and control of bloodborne pathogens are discussed in detail in reference (b). Information outlined below highlights this instruction.

2. **At-Risk Activities and Personnel**. Personnel at-risk for exposure to bloodborne pathogens are those engaged in activities that involve contact with human blood and other body fluids. Activities that most commonly involve potential contact with human blood and other body fluids in uncontrolled situations are those typical of health care, emergency service, and public-safety workers.

   a. The degree of risk and probability of disease transmission are difficult to quantify but are related to the frequency, nature, and magnitude of exposure. Persons who have rare or infrequent exposure to small quantities of blood/body fluids are at significantly lower risk of disease transmission compared to persons frequently exposed to large quantities, particularly if the exposure is percutaneous (through skin) or permucosal (wet surfaces e.g., eye or mouth).

   b. Coast Guard members engaged in AMIO who are at greatest risk for exposure to bloodborne pathogens are health services personnel and emergency medical technicians (EMTs). Other members, e.g., boarding crews, may be in situations from time to time where there is potential contact with blood/body fluids. These situations, however, for the majority of members are infrequent and rarely involve exposure to substantial quantities.

3. **Prevention and Control Measures**. Essential elements of disease prevention and control for bloodborne pathogens include:

   a. Training and Education. Will make workers more aware of the nature of bloodborne pathogens, activities that place them at-risk, and means to prevent disease transmission;

b. Engineering Controls. Involve measures e.g., biohazard disposal that isolate or remove bloodborne pathogens from the workplace; and

c. Personal Protective Measures. Include the principles of "universal precautions" and immunization of appropriately identified members against hepatitis B. Definitions are:

(1) Universal precautions basically mean that all blood/body fluids are considered potentially infectious and require workers to undertake protective procedures; and

(2) Protective procedures are multifaceted and staged, dependent on the nature and magnitude of exposure. Procedures include the wearing of puncture resistant gloves by all personnel in circumstances where blood/body fluids are present.

d. Medical management of exposed personnel includes provision for post-exposure management of personnel who contact potentially infectious blood/body fluids.

4. **Hepatitis B Immunization and Post-exposure Prophylaxis**. Immunization against hepatitis B is very effective in preventing this disease. Hepatitis B immunization does not negate the adherence of other preventive activities but does greatly reduce the overall risk of disease transmission. Hepatitis B immunization is required for health services personnel and strongly recommended for EMTs. Other Coast Guard personnel engaged in AMIO do not have the frequency and magnitude of exposure to warrant routine hepatitis B immunization. Post-exposure prophylaxis for hepatitis B should be administered if clinically signficant exposure to blood/body fluids occurs. The decision to employ post-exposure prophylaxis must be made by competent medical authority. Procedures for adult immunization and post-exposure prophylaxis for hepatitis B are found in enclosure (2).

5. **Sources of Information**. Commander, MLC(k), Commandant (G-KSE), and Commandant (G-KOM) can be contacted for guidance on bloodborne pathogen issues.

E. Enteric Diseases.

1. **Overview**. Enteric diseases are a group of communicable viral, bacterial, and parasitic illnesses that affect the gastrointestinal system. The primary method of transmission is ingestion of contaminated food and water or direct person-to-person spread. Acute vomiting and diarrhea with or without pain or fever are the major

signs and symptoms. Accompanying fluid loss and electrolyte disturbances can be life-threatening. The explosiveness of outbreaks has the potential to severely impact unit operational readiness. The diseases of most concern include: salmonella, shigella, cholera, giardia, pathogenic E-coli, hepatitis A, and various enteroviruses.

2. **Patient Identification and Initial Approach**. Alien migrants who originate from areas endemic with communicable enteric diseases should be considered at risk for having disease or being potential carriers of disease. Persons having diarrhea, vomiting, or abdominal pain, particularly when accompanied by fever or signs of fluid loss, should be categorized as having disease and be treated. If possible, those with disease should be segregated from those without manifestations of intestinal disease. Strict enteric precautions should be instituted. These include proper disposal of human waste, observance of hand washing, and use of hand protection, e.g., disposable gloves. Members assigned to care for ill alien migrants must not be involved in the preparation or delivery of food.

3. **General Prevention**. Fundamental elements to prevent the transmission of communicable enteric diseases include knowledge of how these diseases are transmitted, maintenance of uncontaminated food and water sources, meticulous attention to personal hygiene, and proper handling of human waste. Active duty personnel engaged in AMIO can contact persons infected with enteric diseases and not fear transmission. Coast Guard vessels have on board systems which, if not compromised, will ensure safe food and water. Efforts which are part of an effective program to prevent and control disease include:

   a. Avoiding consumption of food or water provided by alien migrants;

   b. Using latex gloves and thoroughly washing hands with soap and clean water after any contact with persons suspected of having communicable enteric diseases, or with their belongings. Keep fingers out of one's mouth and away from one's nose and eyes. Wash hands thoroughly before eating, drinking, or handling food;

   c. Laundering clothing, disinfecting surfaces, and cleaning eating utensils that come in contact with infected persons or are otherwise thought soiled with their oral or fecal secretions. Handling of such items should be minimized and waterproof gloves should be worn. When possible, disposable plates, drinking containers, and eating utensils should be used when serving meals to alien migrants;

d. Preparing and delivering food in accordance with basic sanitation provisions, e.g., those set forth in reference (f);

e. Securing uncontaminated potable water and maintaining effective sanitation systems for human wastes, as outlined in reference (c), and reference (g);

f. Excluding individuals with communicable enteric diseases from the preparation and delivery of food and water; and

g. Following enteric isolation and biohazard precautions when treating individuals suspected of having communicable enteric diseases.

4. **Hepatitis A**. Personnel engaged in AMIO do not require routine pre-exposure prophylaxis with IG. Uncontaminated food and water sources and conscientious personal hygiene are the keys in controlling transmission of hepatitis A. The role of IG for post-exposure prevention of hepatitis A is discussed in paragraph 2.B.4.c of this manual.

5. **Cholera**. Cholera is endemic in multiple areas of the world, including some from which alien migrants originate. Fortunately, cholera can be completely prevented and controlled through the general preventive measures outlined previously. The high degree of communicability and associated morbidity and mortality make cholera treatment and control paramount.

a. The identification of a cholera patient, whether Coast Guard or alien migrant, must rapidly initiate public health notification and a series of treatment and control measures. Such procedures are:

(1) Public health notification starts with prompt reporting to Commandant (G-KOM) and Commander, MLC(k);

(2) Control measures include patient isolation, strict enteric precautions, and rigorous adherence to proper human waste disposal; and

(3) Patient treatment involves rapid fluid replacement through use of oral or intravenous rehydration therapy.

b. No special personal protective equipment or preventive measures are required for cholera that are not otherwise part of the more general approach to enteric communicable disease control.

c. Cholera vaccine has no role in the control of disease transmission or management of persons who have contact with cholera patients and should not be used. Additional information on cholera may be obtained from the CDC cholera hot line: (404) 332-4597.

6. **Bacillary and Viral Dysentery**. The prevention and control of dysentery, e.g., that caused by shigella, is largely similar to that for other communicable enteric diseases. Hand washing, proper disposal of human wastes, and maintenance of uncontaminated food and water are the primary protective measures. Prophylactic antimicrobial treatment of Coast Guard personnel engaged in AMIO has no role in the prevention of dysentery and should not be used.

7. **Disease Reporting**. Many communicable enteric diseases are reportable. Required reporting of disease occurrence assists in identifying disease outbreaks and their control. Reference (d) provides guidance on communicable disease reporting.

8. **Sources of Information**. Commander, MLC(k), Commandant (G-KSE), and Commandant (G-KOM) can be contacted for additional information regarding communicable enteric disease prevention, control, and treatment.

F. Parasitic Diseases.

1. **Overview**. A variety of parasitic infections may be present in alien migrants. Parasitic illnesses which have the highest prevalence are those which affect the intestines or skin. Typical skin infections include pediculosis (lice) and scabies. Amebiasis, giardiasis, and infections caused by various roundworms and hookworms are the common intestinal parasites.

2. **Prevention Efforts**. The transmission of various parasitic infections to Coast Guard personnel can be entirely prevented. Most parasitic transmission comes as the result of person-to-person spread or, for the enteric parasites, consumption of contaminated food or water. Some policies to prevent infection are:

a. Direct physical contact with alien migrants, or their effects, should be limited and purposeful;

b. Personnel should thoroughly wash their hands after any contact and before self-touching or consumption of food and water;

c. All clothing, bedding, and other objects used by alien migrants should undergo laundering decontamination, or proper disposal. Those tasked to handle such items should wear disposable gloves;

d. Personnel must not exchange physical items with alien migrants, e.g., combs and other personal effects. Human waste must be disposed of in a sanitary manner; and

e. Migrants should remain restricted to topside areas at all times and only allowed below decks when required by operational circumstances.

G. Malaria and Other Insect or Animal-borne Illnesses.

1. **Overview**. Insects or animals serve as the primary mode of transmission for many communicable diseases endemic in areas from which alien migrants originate. Included among these are malaria, yellow fever, plague, anthrax, dengue fever, typhus, and various arthropod-borne viral encephalitides (e.g., eastern equine encephalitis). Most illnesses either result from the bite of an infected insect, e.g., a flea or mosquito, or direct contact with an infected animal or its parts (hair, hide, meat, excrement, etc.). Direct person-to-person spread is generally not a major mode of disease transmission. The threat of insect and animal-borne disease transmission is small in most AMIO-related situations, and can be made negligible with adherence to prevention efforts.

2. **Prevention Efforts**. Actions to prevent insect and animal-borne communicable diseases include education about sources of infection, vector control, personal protective measures, and treatment of infected individuals. The personal protective measures outlined in reference (h) are applicable to the prevention of not only malaria but other mosquito-borne diseases as well. Adherence to shipboard preventive medicine programs helps ensure Coast Guard vessels will not be harborers of disease-bearing insects or animals. General information to minimize threat of disease transmission via insect vectors follow.

a. Vessels used to transport alien migrants may be unsanitary by U.S. standards. Experience with AMIO has demonstrated that migrant vessels can have uncontained human waste as well as gross contamination with sewage and various types of refuse. Some protective measures are:

(1) Use latex gloves along with thorough hand washing as a primary protective measure against many types of communicable diseases found in unsanitary conditions. (Latex gloves should not be reused and must be replaced if ripped or punctured.);

(2) Waterproof footwear, bibs, and goggles are generally unnecessary and offer little absolute protection beyond that of latex gloves and hand washing; and

(3) Used protective clothing/equipment must be properly decontaminated or otherwise appropriately handled.

b. Vessels used by alien migrants should be viewed as potential carriers of undesirable insects, rodents, and other disease bearing vectors. Contact between Coast Guard personnel and alien vessels should be minimized to that essential for operational needs.

c. Coast Guard vessels should minimize close aboard situations with migrant vessels. However, close aboard evolutions may be conducted as operational situations dictate.

d. Bedding, clothing, and personal items of alien migrants should be considered potentially infectious and transfer of these items to Coast Guard vessels should be strictly controlled, avoided where possible, and minimized to that essential for operational necessity.

e. No foodstuffs or water from alien sources should be brought aboard Coast Guard vessels.

f. Animals, alive or dead, and their body parts, e.g., hides, fur, horns, etc., must not be brought aboard Coast Guard vessels. Under no conditions should animals obtained from alien sources be brought into the U.S. without adherence to U.S. importation and quarantine laws.

3. **Malaria**. Full discussion of malaria is provided in reference (h). Alien migrants can originate from areas endemic with malaria. Malaria, however, is not passed directly from person-to-person and the circumstances of most AMIO situations otherwise make the risk of malaria remote. Coast Guard members engaged in AMIO may make port visits or similarly travel to land regions where malaria is endemic. These situations are not specific to AMIO and are covered by provisions of reference (h).

4. **Additional Information Sources**. Commander, MLC(k) or Commandant (G-KSE), and Commandant (G-KOM) can be contacted for guidance on issues related to prevention and control of insect and animal-borne communicable diseases. Health information for International Travel (updated regularly) can be obtained by calling The Center for Disease Control and Prevention, Division of Quarantine at 404-639-8106 or Superintendent of Documents, U.S. Government Printing Office at (202) 783-3238.

CHAPTER 3. FOOD, WATER, AND SANITATION

A. Background. Explosive outbreaks of intestinal disease can rapidly degrade the ability of Coast Guard crews to carry out their missions. Coast Guard vessels have extensive and integrated systems to prevent illness related to food, water, and sanitation. Strict adherence to prescribed food practices, water purification, cleanliness, and waste disposal will minimize the risk of enteric disease to personnel engaged in AMIO.

B. Safe Food Practices.

1. Food must be prepared and stored in accordance with reference (f). Foodstuffs from alien migrant sources should not be brought aboard Coast Guard vessels. Foods from alien migrant sources shall not be served to Coast Guard members.

2. Meals should be prepared and served separately for Coast Guard members and alien migrants. Attention is required to ensure meals reach the intended persons and cross mixing or contamination of foods does not occur. Once food has left controlled areas to be served to alien migrants, it shall not be returned for storage or reuse.

3. Individuals who prepare foods must be healthy and free of communicable diseases. To minimize risk of inadvertent disease transmission, food service personnel should not come into close contact with alien migrants. Alien migrants shall not enter areas where food is prepared, served, or stored for Coast Guard members.

C. Potable Water.

1. Coast Guard vessels have systems that ensure safe potable water. Guidance provided in reference (i) will safeguard the integrity of shipboard water supplies. Water for human consumption should be readily accessible and available in ample supplies. Drinking water requirements are affected by several variables, including climatic factors, presence of injuries or medical conditions, general state of health, sex, and age. A rule of thumb is 6 liters of drinking water per person per day. Additional requirements of water are needed for food preparation, personal hygiene, sanitation, and laundering. Total water requirements for all purposes is typically 300 to 400 liters per person per day.

2. Water used for human consumption, personal hygiene, and food preparation must be potable (maintain a free chlorine residual of 0.2 parts per million (ppm) at all times) and free of contamination. Water used for sanitation, e.g., sewage disposal, need not be potable,

providing there are safeguards preventing its use for human consumption.

3. Water for human consumption should be obtained only from sources for which the safety is certain. If emergency purification of water is required, enclosure (1) outlines several methods to produce potable water for emergency use.

4. Attention must be directed to adequate drainage, cleaning, and prevention of safety hazards e.g., slippery surfaces, etc., for showers installed for alien migrant use. A privacy area for dressing near the showers is recommended, if feasible.

D. Sewage and Infectious Waste Disposal.

1. **Sewage Disposal**. Coast Gurad vessels have integrated sanitation systems that efficiently contain human waste. Large numbers of alien migrants, however, can overhelm shipboard systems. Use of sanitation facilities and sewage disposal for alien migrants should be separated from that of the vessel. Sanitation facilities established for alien migrants should be located for easy access and physically separated from eating and living areas, in accordance with reference (g). If possible, the opportunity for hand washing should be provided.

2. **Infectious Waste**. NOTE: Disposal of medical and or biological waste is regulated by various local law. The unit must be aware of any local law or ordinance in their AOR. There is no epidemiology evidence to suggest that most medical waste is any more infectious than residential waste. However, the public concern about the risk of medical waste must not be ignored. Identifying waste for which special precautions are indicated is necessary.

   a. Biohazard warning labels shall be affixed to containers of regulated waste, refrigerators, and freezers containing blood or other potentially infectious material, and other containers used to store, transport, or ship blood or other potentially infectious materials with the following exceptions:

      (1) Red bags may be substituted for labels on bags or containers of regulated waste. Chapter 5 of this instruction requires personnel be trained to understand the meaning of all color coding; and

      (2) Individual containers of blood or other potentially infectious materials may be placed in a labeled container during storage, transport, shipment or disposal. Handling suspected waste

shall be done in accordance with 13.K.12 (Infectious Waste) of reference b.

b. Coast Guard classification is based on the type of facility. All clinics are considered generators. Each health care facility must have a written protocol for the management of infectious waste which is consistent with this instruction, state, and local regulations.

c. The most practical approach to the management of infectious waste is to identify waste with the potential for causing infection during handling and disposal, and for which special precautions appear prudent.

(1) Medical waste for which special precautions appear prudent include sharps, microbiological laboratory waste, pathology waste, and blood specimens or blood products.

(2) While any item having contact with blood, exudates, or secretions may be infectious, it is not usually practical or necessary to treat all such waste as infectious. Even materials containing small amounts of blood, saliva, or other secretions e.g., tainted gauze pads, sanitary napkins or facial tissues are considered infectious waste.

d. Infectious waste, in general, will be autoclaved or incinerated before disposal in a sanitary landfill.

e. Infectious waste autoclaving standards are different from normal sterilization standards. Bulk blood, suctioned fluids, excretions, and secretions may be carefully poured down a drain connected to a sanitary sewer. Sanitary sewers may also be used to dispose of other infectious wastes capable of being ground and flushed into the sewer where permitted. (Verify with HAZMAT officer or engineering officer.)

E. Personal Hygiene.

1. **Decontamination Point**. Consistent and conscientious use of personal hygiene is essential for the prevention and control of many communicable diseases. This is particularly important for members of vessel boarding teams or those who have physical contact with alien migrants or their belongings. A decontamination point provides a clearly identifiable and centralized station that highlights attention and focuses efforts for personal hygiene. Commanding officers must consider establishing a decontamination point when the following conditions exist:

a. Operational circumstances involving contact with a vessel suspected of carrying alien migrant;

b. Coast Guard personnel will physically board the suspect vessel, or, alien migrants will be staged on board the Coast Guard vessel;

c. For boarding situations, pre-boarding assessment indicates that conditions on board the migrant vessel are unsanitary and the migrant vessel has insufficient facilities for proper decontamination of returning boarding personnel; and

d. For situations where migrants are staged on board Coast Guard vessels, the numbers of migrants, duration of migrant presence, or other operational circumstances raise the likehood that decontamination of personnel will not be consistently met without a decontamination point.

2. **Elements of a decontamination Point**. The fundamental purpose of a decontaminatin point is the control of communicable disease transmission through the effective and consistent use of personal hygiene. Elements of a decontamination point include:

a. Handwashing station. Includes wash basins with warm soapy water, a sanitizing rinse, and disposable towels. Some medical wet wipes may be used if they contain a strong disinfectant. Alcohol pads are not to be used as a substitute for handwashing;

b. Boot cleaning station. Includes scrub brushes, warm soapy water, a mild bleach solution (one capful of bleach per gallon of water), and rinse water. Make sure boots are unlaced and that both boots and laces are immersed in the bleach solution for at least one minute before rinsing;

c. Shower facility. Showers will require plastic bags for clothing, soap, shampoo, towels, and adequate drainage; and

d. Clothing exchange point. Ensure all contaminated clothing is bagged up and laundered daily. If clothing is grossly contaminated with blood, body fluids, or human waste, treat as infectious waste and turn in to unit Health Services Technician for proper disposal.

e. Other equipment. Periodic mild detergent scrub down, rinse and air dry of web gear, jackets, and other articles which are exposed but not launderable is required at a minimum of monthly, frequency should be daily if known to be contaminated.

CHAPTER 4. HEALTH ISSUES OF ALIEN MIGRANTS

A. Background. Persons displaced by war, natural disaster, famine, and other factors are frequently dependent on others for their basic human needs. Large numbers of migrants can rapidly overwhelm the resources of those providing assistance unless there has been careful planning and adequate preparations. A systematic and organized response will greatly assist in making structure out of apparent chaos. Issues associated with AMIO cover a spectrum of concerns ranging from international law, security, and humanitarian needs. Planning will help ensure that AMIO will be conducted in an appropriately safe and efficient manner. The content of this chapter focuses on the public health and humanitarian needs of displaced populations e.g., those related to AMIO.

B. Planning. Public health and communicable disease issues of alien migrants are primarily focused on disease control, suitable berthing, adequate water and nutrition, sanitation, and medical care of sick or injured. Planning for probable contingencies involves awareness of the factors and circumstances pertinent to AMIO such as:

1. The country of migrant origin;

2. Estimated numbers of persons;

3. Population characteristics of alien migrants (race, sex, and age distributions);

4. Typically presenting health and mental status;

5. General environmental conditions;

6. Length of stay; and

7. Unique issues, e.g., security concerns, etc.

C. Specific Issues.

1. **Assessment of Health Status**. Upon arrival, migrants should be rapidly assessed for health status. Standard triage techniques will differentiate those who require immediate, urgent, or delayed medical attention. Persons who have life or limb threatening conditions should receive immediate care and be referred for more definitive care, if needed. Health care problems of a less threatening nature should be addressed secondarily, dependent on available resources and health care expertise. Resources should not be diverted for chronic conditions which are generally best remedied in more stable circumstances. If possible:

a. Record information (on Chronological Record of Medical Care, SF-600) from health care assessment and interventions for individual persons; and

b. Summarize health information (on Chronological Record of Medical Care, SF-600) on the entire population treated. Summary information would include total number of persons treated, distribution of patients by sex and age, number and types of diseases encountered, and so forth.

2. **Nutrition**. Health status assessment provides an initial idea of the nutritional state of alien migrants. Persons who appear emaciated or gaunt or who have a distended abdomen or swollen ankles, may be in severe nutritional deficiency and require rapid and specialized intervention. Food best suited for migrants are those which are part of their normal diet. Caution must be taken to prevent issuing food to alien migrants when there is known physical intolerance. Meals served twice a day, in generous quantities, are usually sufficient to meet the nutritional needs of most persons. Individuals who are ill, suffer chronic nutritional deficiencies, are under 6 years of age, or are pregnant have nutritional needs that require more frequent and specialized meals. Additional basic principles of alien migrant nutrition include:

   a. Rule of thumb on daily caloric need is a minimum 1,900 kcal/person/day. At least 10 percent of the calories should be from fats and 12 percent from proteins;

   b. Food distribution should be controlled to ensure that all members are fed;

   c. Avoid use of dried milk or other milk products unless these foods are normally consumed;

   d. Generally safest are simple foods e.g., rice, beans, and cooked vegetables; and

   e. Encourage breast feeding infants when such situations exist.

3. **Space**. Operational and environmental circumstances are important determinants in space needs. Space requirements for alien migrants include those needed for sleeping, eating, personal hygiene, and medical care. Additional factors are the numbers of persons involved and anticipated length of stay. Large numbers of migrants can quickly crowd available holding areas. What may be acceptable for short term stays may be unacceptable for long term.

4. **Communicable Disease Control**. Crowding, over-tasked resources, nutritional deficiencies, poor sanitation, and apparent chaos are common circumstances affecting displaced populations. Acute communicable diseases frequently accompany alien migrants, the most common of which are diarrhea and respiratory infection. Prevention and control measures should be implemented among migrants to minimize communicable disease occurrence. Some measures and safeguards are:

   a. Attain and maintain safe food and potable water sources;

   b. Install and ensure sanitary disposal systems for human wastes;

   c. Eradicate or control insects and animal vectors;

   d. Decontaminate or otherwise effectively process eating utensils, clothing, bedding, and personal effects which serve as sources of disease transmission;

   e. Appropriately handle alien migrants identified with communicable diseases to control transmission; and

   f. Minimize contact between alien migrants and Coast Guard crew members.

   Note: Commandant (G-KOM) may direct immunization and prophylactic treatment of migrants beyond the requirements of this manual. Policy direction will be provided by message when required.

5. **Miscellaneous Factors**. Alien migrant situations involve psychologic, physical, social, physiologic, and other stressors. Capabilities to address these concerns are frequently limited in the typical migrant environment, but can have an important payoff in terms of effective and humanitarian management. Factors that should receive consideration include:

   a. Establish lines of communication with migrants;

   b. Allow family units to cluster and associate;

   c. Create the impression that the caretakers are clearly in control of the situation yet interested in migrant concerns;

   d. Be aware of important religious, cultural, and ethnic customs and practices;

   e. Encourage self-help;

f. Treat alien migrants with understanding and compassion while following the recommendations of this instruction; and

g. Minimize actions which convey the perception that fears of communicable disease are of higher concern than assisting desparate human beings.

PREPARATION OF EMERGENCY SOURCES OF POTABLE WATER

1. **Boiling**. Water can be made safe in most circumstances by bringing it to a full boil for 10 minutes.

2. **Chlorination by household bleach solutions**. Household bleach can be used to purify water in an emergency. The volume of bleach solution required is dependent on bleach concentration and turbidity of water. The table below provides necessary guidance.

Bleach Concentration	Clear Water Drops of Bleach/Liter	Turbid Water Drops of Bleach/Liter
1%	10	20
4-6%	2	4
7-10%	1	

   The bleach should be added to the water and allowed to stand for at least 30 minutes. If a slight but distinct chlorine smell is not detected after 30 minutes, repeat the dosage and again allow to stand for at least an additional 30 minutes.

3. **Chlorination by Calcium Hypochlorite**. Powdered calcium hypochlorite, also known as Perchloron, can be used to purify water. First prepare a stock solution by dissolving 7 grams (approximately 1/4 oz or 1 heaping teaspoon) in 2 gallons (approximately 8 liters) of water. Add the prepared stock solution to the water to be purified in a ratio of 1 part of stock solution to 100 parts of water. For example, 1 oz. of stock solution would be used to purify 100 oz. of water. Let the prepared mix stand for at least 30 minutes before consumption. The shelf life of the stock solution is two weeks.

Enclosure (2) to COMDTINST M6220.9

ADULT IMMUNIZATION FOR HEPATITIS B

Recombivax HB	OR	Engerix-B
dose in microgram (dose in ML) ages 11-19: 5 (0.5) ages > 20: 10(1.0)		dose in microgram (dose in mL) all ages: 20 (1.0)

Both vaccines are recommended to be administered in a three dose series at 0, 1, and 6 months. Injections should be given in the deltoid muscle.

See enclosure (2) chart 2-1.

CHART 2-1 POST-EXPOSURE PROPHYLAXIS FOR HEPATITIS B FOLLOWING PERCUTANEOUS EXPOSURE

Exposed Person	HBsAg Positive	HBsAg Negative	Unknown or Not Tested
Unvaccinated	Administer HBIGx1* and initiate hepatitis B vaccine	Initiate hepatitis B vaccine	Initiate hepatitis B vaccine
Previously vaccinated			
Known responder	Test exposed person for anti–HBs 1. if adequate, no treatment 2. if inadequate hepatitis B vaccine booster dose	No treatment	No treatment
Known non–responder	HBIG x 2 doses 1 month apart or; HBIG x 1 dose, plus 1 dose of hepatitis B vaccine	No treatment	If known high–risk sourse, may treat as if source were HBsAg positive
Response unknown	Test exposed person for anti–HB** 1. if inadequate HBIG x 1 dose, plus hepatitis b vaccine booster dose 2. if adequate, no treatment	No treatment	Test exposed person for anti–HBs** 1. if inadequate, hepatitis B vaccine booster dose 2. if adequate, no treatment

Treatment When Source is Found to Be:

* Hepatitis B immune globulin (HBIG) dose 0.06 mL/kg intramuscularly.

** Adequate anti-HBs is >10 milli-international units. Post-exposure prophylaxis should be initiated within 48 hours of exposure but still has been shown to be effective when initiated within seven days.

NOTE: Most situations typical of AMIO will be that the HBsAG status of the source is unknown. If the source person is highly suspected of being HBsAG positive, but true HBsAG status is unknown, consider administration of HBIG x 1 in addition to hepatitis B vaccination series.

CLEANING AND DECONTAMINATION OF BLOOD AND BODY FLUID SPILLS

A. Recommended Surface Disinfectants:

1. **Phenolic Compounds**. In high concentrations, phenolics are protoplasmic poisons. In low concentrations, they inactivate essential enzyme systems. As disinfectants, phenolics are usually combined with a detergent. They do not damage treated surfaces. Disinfection can be achieved after 10 - 20 minutes of contact.

2. **Sodium Hypochlorite**. Sodium hypochlorite is thought to oxidize microbial enzymes and cell wall components. A 1:10 dilution of 5.25 percent sodium hypochlorite in water yields a solution which can provide an intermediate level of disinfection in 10 minutes. Since sodium hypochlorite solution tends to be unstable, a fresh solution must be prepared daily. It possesses a strong odor and can be harmful to eyes, skin, clothing, upholstery, and metals (especially aluminum).

B. Chemical Disinfectants Not Recommended.

1. **Alcohol**. Alcohol is bactericidal against vegetative forms of bacteria through the denaturation of cellular proteins. A 70 - 90 percent solution (diluted with water) is more effective than a more concentrated solution. The disadvantages of alcohol use are (a) rapid evaporation, (b) lack of sporicidal or viricidal activity, and (c) rapid inactivation by organic material. Alcohol alone shall not be used for disinfection.

2. Quaternary Ammonium Compounds. In the past, benzalkonium chlorides and other "quats" have been used as disinfectants because they were thought to be safe, inexpensive, and to have low surface tension. Their biocidal activity results in a breakdown of the bacterial cell membrane producing an altered cellular permeability. As a group, these compounds have several serious deficiencies. Being positively charged, they are attracted to not only bacteria but also to glass, cotton, and proteins. This decreases their biocidal activity. The negatively charged ions of common cleaners, soaps, and other compounds will also neutralize "quats." Some "quats" have been shown to support the growth of gram-negative organisms. They are ineffective against most spore formers, the hepatitis B virus, and the tubercle bacillus.